--transmission for efficient use of multi-level modulation processes which employ orthogonal basis functions to represent a signal to be transmitted.--.

On page 1, before line 4, insert --Related Technology--.

On page 1, line 8, after "3" insert --, which is hereby incorporated by reference herein--.

On page 2, line 12, after "300" insert --, which is hereby incorporated by reference herein--.

On page 2, before line 17, insert --Summary of the Invention--.

On page 2, line 24, change "the object" to --an object-- and before "invention" insert --present--.

On page 2, delete lines 23-30.

On page 3, delete lines 1-4.

On page 3, before line 6, insert --The present invention provides a method for data transmission using a multi-level modulation process to represent a signal for transmission, the multi-level modulation process using at least one orthogonal basis function. Signal points of a signal constellation are selected according to at least one respective predetermined and/or selected probability so as to optimize a respective signal energy and/or a respective signal data rate, the selected signal points each having a respective defined energy.

The present invention also provides a circuit arrangement for data transmission using a multi-level modulation process, the multi-level modulation process using at least one orthogonal function, the circuit arrangement including a data source for providing a data stream; a recoder downstream of the data source; a modulator for selecting signal points of a signal constellation according to at least one respective predetermined and/or selected probability so as to optimize a respective signal energy and/or a respective signal data rate, the selected signal points each having a defined respective energy, the modulator being connected to an output of the recoder; a transmission channel, an input of the transmission channel being connected to an output of the modulator; a demodulator, an input of the demodulator being connected to an output of the transmission channel; an inverse recoder for executing the operation inverse to that of the recoder, an input of the inverse recoder being connected to the demodulator; and a data sink, an input of the sink being connected to an output of the inverse

Cont A4

recoder.--.

NE On page 3, line 6, change "described here" to --according to the present invention--.

On page 3, line 17, change "(0,+-(1+√3)/2" to --(0,+-(1+√3)/2)--.

On page 3, line 18, change "approx." to --approximately--.

On page 3, delete line 20 ---.

On page 3, line 21, change "the recoding," to --With a method according to the present invention recoding is-- and change "accomplish, if" to --accomplish when--.

A5

On page 4, line 19, after "are" insert --revealed below--.

On page 4, delete lines 20-24.

On page 4, before line 26, insert --Brief Description of the Drawings--.

On page 4, line 26, before "invention" insert --present-- and change "on the basis of exemplary" to --with reference to the drawings, in which:--.

A6

On page 4, line 29, after "shows" insert --a graphical representation of--.

On page 5, line 1, after "shows" insert --a graphical representation of--.

On page 5, line 3, change "3+6 show" to --3 shows-- and delete "used".

On page 5, line 8, after "points" insert --shown-- and delete "and".

On page 5, line 11, change "vice versa." to --vice versa; and--.

On page 5, before line 13, insert --

A7

Fig. 6 shows a block diagram of a circuit arrangement for improved data transmission with the aid of the efficient use of multilevel modulation methods with recoder control as a function of temporary storage and with a second data source and second data sink.

Detailed Description--.

On page 5, line13, change "was already stated" to --stated above--.

On page 6, line 12, after "1098-1101" insert --, which is hereby incorporated by reference herein--.

A8

On page 6, line 30, change "energy 3" to --energy 3;--.

On page 7, line 3, delete "the construction of" and change "implementing the"to --improved data transmission with the aid of the efficient use of multilevel modulation methods.--.

A9

On page 7, line 11, before "recoder" insert --inverse--.